## REMARKS

### File History

The present response and amendment is presented pursuant to 37 CFR 1.114 whereby Applicant requests continued examination (RCE).

In the last outstanding and final Office action of 6/27/2008, the following allowances, rejections, objections, requirements and other actions appear to have been made:

- **Claims 1-3, 5-8, 11-13, 15-20** were rejected under 35 USC §103(a) as being obvious over **Childs et al.** (GB 2282928 A published 1995) as combined with **Yanagawa et al.** (US 5,694,186 issued 1997) and further combined with **Ito** (US 4,989,079 issued 1991).

- **Claims 4, 14** were rejected under 35 USC §103(a) as being obvious over **Childs** as combined with **Yanagawa** with **Ito** and further combined with **Herbert** (US 2004/0111435).

- **Claims 21, 30-32** were rejected under 35 USC §103(a) as being obvious over **Childs et al.** (GB 2282928 A published 1995) as combined with **Kasson** (US 5,450,216) and with **Ito**.

- **Claims 1-8, 21** were rejected under 35 USC §112, paragraph 1 for lacking support in the written description.

### Summary of Current Response

Claims 1-21 and 30-32 are canceled without prejudice.

Claims 34-56 are newly submitted.

The specification is amended.

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**Applicants' Overview of Outstanding Office Action**

Although new claims are presented with this RCE, Applicant believes the outstanding Office action of 6/27/2008 is still relevant. The following noteworthy features (1)-(3) are thus mentioned:

(1) The Examiner agrees that Childs does not teach to divide a displayable color space of a display (e.g., Fig. 5 of Childs) into triangular regions that share an interior point as a common vertex (OA page 6, last 3 lines).

(2) No reason is given for why the ordinary artisan would see it as obvious to combine the unrelated RGB-only LCD teachings of Yanagawa with the multi-primary teachings of Childs. Instead a tortured narrative was provided in the last Office action concerning a proposed "shifting" of colors towards the white point in Yanagawa due to the "importance" of that RGB-only white point (OA page 7, paragraph 2). The narrative rests on some unarticulated "success" that supposedly would arise out of having "more non-overlapping triangles" if Childs were to use his white point and the "shifted" colors accordingly. (Applicant is confused by this narrative and perhaps does not fully appreciate it, in which case clarification is respectfully requested, more specifically explaining exactly what goal and success would the ordinary artisan be seeking without aid of hindsight and why the ordinary artisan would not see Childs as being good enough given that Childs is arguably a person of extraordinary skill.)

(3) No reason is given for why the ordinary artisan would see it as obvious to combine the unrelated electrophotographic machine teachings of Ito with the unrelated RGB-only LCD teachings of Yanagawa and the unrelated teachings of Childs. Both of Ito and Yanagawa are limited to output systems that have only 3 colors (RGB in Yanagawa's case and CMY toners in the electrophotographic case of Ito.) At page 9 line 2, the Office action asserts that the electrophotographic case of Ito is analogous to the LCD case of Yanagawa because they share a same RGB input space. However, the differing output systems of Yanagawa and Ito are not accounted for.

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**Applicant's Reading of the Childs reference**

Fig. 5 of Childs shows a displayable 4-sided polygon having vertex points Bd, G2d, G1d and Rd.

Childs teaches to divide this polygon into just three triangles: the Bd-G2d-G3d triangle where G3d is an artificially picked midpoint between G2d and G1d; the Bd-G3d-Rd triangle; and the Rd-G1d-G3d triangle. None of these triangles have a vertex inside the interior of the 4-sided polygon. None of these triangles have a side passing through the D65 illuminant white point (see last 2 lines of Childs page 5).

Childs teaches by way of his Fig. 6 that a desirable advantage of his three-triangles system of Fig. 5 is that just two normalizing circuits 36 (the ones with the diodes) are needed for "matching negative values of Rd by appropriate values of G1d G2d and Bd". When the a"'rd output tries to go negative, it apparently activates the ideal diodes in the first of the two normalizing circuits 36. (See Childs pages 22-24, Implementation in Hardware.) Each of output circuits a"'rd, a"'g1d, a"'g2d and a"'bd of Childs Fig. 6 has three input resistors corresponding to the prespecified three conversion matrices of the three triangles in Fig. 5.

Childs also teaches that the D65 illuminant white point is dedicated for use in balancing the conversion matrices to one another. See Childs page 19, text line 5: "whose values are all unity at the specified white point (D65)." Childs does not teach or suggest that the dedicated white point should be used for any function other than balancing the equations.

**Applicant's Reading of the Yanagawa reference**

Fig. 1 of Yanagawa shows that it is directed to a 3-colors only LCD which suffers from chrominance shift problem as viewing angle changes. The viewing angle denoted as θ2 is designated as an acceptable isochromatic viewing angle (col. 5, lines 25-37).

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Fig. 2 of Yanagawa shows how the gamut of viewable colors shrinks as the viewing angle shifts away from normal (col. 6, lines 1-12). If the to-be-displayed image is limited to an arbitrarily picked inner triangle, it can be seen even at an off-normal viewing angle.

The outstanding grounds of rejection try to assert that Yanagawa teaches the "importance of the white point" (OA page 7) to a reasonable and rational artisan such that the artisan would be motivated into "using ... more non-overlapping triangles" with points closing in on the white space of Yanagawa as opposed to points located on the boundary of Childs' quadrilateral (polygon). The Office action implies that this might lead to anticipated "success" without explaining what this success is or how the ordinary artisan would come to anticipate it. It is respectfully submitted that there is no rational underpinning or a showing of probative evidence in this narrative.

KSR was limited to its facts. In KSR, the court reasoned that the end result of substituting an electronic throttle control for a mechanical throttle control was already clearly in view for one of ordinary skill in the automotive arts and that substituting a "modular" electronic pedal sensor for a mechanical one was like placing the last piece into a puzzle whose outcome was already known. (Puzzles are sold with the solution displayed on the outside of the box.) Moreover KSR was unique in that the patentee's expert had testified that the solution was "simple" (as well as being elegant). The court interpreted simple to mean obvious.

The KSR court however cautioned that all obviousness findings must have rational underpinnings and that these must be articulated.

It is respectfully submitted that in the instant case no rational underpinning has been articulated.

There is no advantage to having more non-overlapping triangles in Childs because such would (on its face) require more solution matrices and would add to the complexity of the hardware. If anything, Childs guides the ordinary artisan to have as few triangles as possible.

Moreover, Childs Fig. 5 guides the ordinary artisan to have a single large triangle (Bd-G3d-Rd) filling most of the displayable gamut so as to have the D65 white point substantially at its center. Childs Fig. 5 guides the ordinary artisan to have smaller ancillary triangles (Bd-G2d-G3d and Rd-G1d-G3d) at the sides of the primary middle triangle (Bd-G3d-Rd) with neither of them having the D65 white point in their interiors. Childs implies to the ordinary

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artisan that the D65 white point is to be dedicated to the one function of balancing the conversion equations.

**Applicant's Reading of the Ito reference**

Fig. 1 of Ito shows that it is directed to an electrophotographic machine that uses Cyan, Magenta and Yellow toner particles for printing a color picture on paper. There are special problems attended with using these specific toner particles (col. 3, lines 19-37) that call for corrections du to the nature of the CYM toners. There is no suggestion that teachings of Ito are applicable to displays that use colored light sources.

**Applicant's Reading of the Outstanding Grounds of Rejection**

As described above, Ito is directed only to a 3-colored absorptive CYM toners system and has no rational relation to displays that include primary light sources of different colors. There is nothing to commend Ito to the attention of an ordinary artisan who is dealing with a multi-primary light emitting "video" system such as that of Childs. (See Childs page 1, first two paragraphs). The outstanding Office action provides no rational explanation for combining Ito with Childs. That both have RGB inputs is not enough. The person of ordinary skill is understood to be more sophisticated than that.

Also as described above, Yanagawa is directed only to a 3-colored LCD system that suffers from chromatic shift due to viewing angle. There is nothing to commend Yanagawa to the attention of an ordinary artisan who is dealing with a multi-primary light emitting video system such as that of Childs. That both have RGB inputs is not enough. That both have drawings with triangles appearing therein is not enough. The triangles of Yanagawa have nothing to do with conversion matrices. There is no enabling disclosure in Yanagawa for empowering the ordinary artisan to create conversion matrices for the triangles shown in Yanagawa Fig. 2. A person of ordinary skill who does not have hindsight knowledge of the present application would not reasonably see any logical connection with Childs and none has been offered in the previous Office action.

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Also as described above, Childs guides the ordinary artisan to consider the D65 white point as being dedicated for balancing equations. Skilled artisans understand that the brightness information garnered from measurement of the display white point supplements the chromaticity information garnered from measurement of the display's primary color light sources so that these can be mapped to the CIE 1931 XYZ space and a reverse mapping can be devised. There is nothing in Childs that suggests to the ordinary artisan a "success" that might be obtained from considering the white interior point as a common anchor point for multiple triangular regions or from associating different conversion matrices with such radially expanding out triangles. Childs is dated 1995. Surely if advantages of considering the white interior point as a common anchor point were obvious, then someone in the 8 intervening years (April 1995 to Oct. 2003) would have seen it and employed it. But the fact is that historically artisans in the field are conditioned to placing a large RGB triangle at the center of the color space with the whit point being located in the interior of that triangle only as a reference point. It is impermissible to use the disclosure of the present application as a blueprint that deprecates against its own novel and nonobvious teachings.

## CONCLUSION

It is believed that all outstanding grounds of rejection have been overcome or traversed in light of the foregoing. Applicant respectfully requests entry of the amendments and reexamination with favorable outcome. Should any other action be contemplated by the Examiner, it is respectfully requested that he/she contact the undersigned at (408) 392-9250 to discuss the application.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-2257 for any matter in connection with this request, including any fee for extension of time and/or other fee which may be required.

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